

A communication was read from Mr. G. B. Sowerby, jun., containing the descriptions of nine new species of shells and of the opercula of two known species.

The following papers were read :—

1. On Birds collected in the Timor-Laut or Tenimber Group of Islands by Mr. Henry O. Forbes. By P. L. SCLATER, M.A., Ph.D., F.R.S., Secretary to the Society.

[Received February 19, 1883.]

(Plates XI.—XIV.)

I have now the pleasure of placing before the meeting the first-fruits of the expedition to the Timor-Laut, or Tenimber, group of islands, carried out by Mr. Henry O. Forbes under the auspices of the British Association¹ last summer. They consist of a selection from Mr. Forbes's series of birds containing 70 skins, referable to 55 species, being the only portion of his collections that has yet reached England.

Mr. Forbes passed about three months (July, August, and September last) in the Tenimber group. The following extracts from his MS. report will show some of the difficulties which he experienced in commencing his collections :—

“ After an interesting voyage, in which we called at Jessier at the eastern end of Ceram, at two points of New Guinea (where I had an opportunity of going ashore and seeing the people), and at both the Ké and Aroo islands, we landed at the village of Ritabel, in the islet of Larat, which lies off the north-east coast of Yamdena (as the northern of the two portions of Timor Laut is named), at a distance of about fifteen minutes' sail. Within an hour after landing us the ‘Amboina’ steamed away, leaving us to our fate for the next three months.

“ Our first walk to the outskirts of Larat brought us face to face with the rather disagreeable fact that the place was in a state of siege. The whole village was enclosed with a double row of palisades; and the ground on every spot, where not absolutely devoid of vegetation, bristled with bayonet-shaped bamboos pointing in every direction. This was for protection against two neighbouring villages, Keleobar and Lamdesar, one to the right and the other to the left of us, who every now and then had been making midnight raids and sudden day-attacks on the Ritabel people, picking off with flintlock and arrow every unsuspecting villager, and then making off. The dismembered bodies of the victims of these expeditions were to be seen swinging about in the breeze from the limbs of the trees near the village-gates, and dangling from pole-ends on the platforms erected

¹ See Reports of the Timor-Laut Committee in Rep. Brit. Assoc. 1881, p. 197, and 1882, p. 275.

on the sea-margin, where the dead are deposited. The terror of the villagers, who did not dare to venture any distance from the gates, and the bamboo-stakes distributed over the country, made collecting a very difficult matter. Few would volunteer to act as guides; and my hunters, shooting unaccompanied, were often laid up with wounds from the bamboo-spikes.

“Our first concern was to get a house, the huts being so small that to house our baggage or work in them was quite out of the question. A site was obtained only after the most vexatious delay by purchasing eight huts and removing them. At length, by the aid of a lavish remuneration we were able to erect a new dwelling, which was not finished till 17 days after our arrival.”

The succeeding portion of Mr. Forbes's report is mainly occupied with anthropological matters; but the following paragraphs contain some general remarks upon the physical peculiarities of the Tenimber group:—

“The Tenimber Islands, as seen from the sea, are very low. There are no hills; nothing over 400 feet on the northern island nor on the surrounding islets, with the exception of Laibobar on the west coast of Yamdena, which rises to a height of about 1500 feet as seen from Larat across the mainland. The Tenimber group is surrounded (as I am told by the commander of H.B.M. ship ‘Samarang’) by a very deep sea. The islands are entirely of coral-formation. On the eastern shore of Yamdena there are coral cliffs of about 100 feet in height, from which immense stalagmites hang down. Along the beach are here and there blocks of tide-worn sandstone; but nowhere have I been able to find any sedimentary rocks save on the islet of Larat, near the village of Retabel, where, a few hundred feet inland from the shore, a short cliff, some 50 feet in height running in a N.W. and S.E. direction, exhibits a bed of stratified sandstone between coral conglomerates. Its texture is close and fine, and it is of a reddish-yellow colour. In the interior of Yamdena the coral lies a few inches below the surface, being covered only by a very thin layer of dark mould. There are absolutely no traces of sedimentary strata, with the exception of one small nodule of a fine calcareous sandstone. Along the shore low coral cliffs alternate with sandy baylets (the land is almost entirely of fine particles of coral and minute shells and broken fragments of *Echini* &c.), which are studded also with worn coral boulders. At the base of these cliffs, and in fact all along the shore, the floor, as exhibited at low tide, is composed of a black mud formed of disintegrated coral, vegetable refuse, small shells, sand, and fine mud, lying on a broken-up mass of coral concrete. Very few corals are alive within the space left by the tides or in the shallows near the margin. Here and there Madrepores and *Pirites* and *Tubipora* live on the undersides of the stones in the pools, or where they will be but a short time left exposed. Sponges, grey or dark brown or light yellow, like shoots of some young plants, expose their oscula on every rough eminence; while pale yellow or rich green patches of *Alcyonias* give colour to the grey shore.

“Among the Vertebrates only one Batrachian was found or seen.

Snakes were tolerably abundant, both on the mainland and on the small surrounding islands.

“Of Birds some 70 or 80 species were obtained. *Eos reticulata*, a small white Cockatoo, and a species of *Carpophaga* were among the commonest species. A species of *Geopelia* and two lovely species of *Ptilopus* are not uncommon. A species of *Megapodius* is found on the islands, but it is rather rare: its mounds were not even seen; it frequents the shore. The *Meropidæ* are represented by one species; the *Alcedinidæ* by one species; *Caprimulgidæ* by one species (not obtained); *Cypselidæ* by one species (*Collocalia*, not obtained); *Nectariniidæ* by one or two species; *Meliphagidæ* by one species; *Artamidæ* by one species; *Muscicapidæ* by several species; *Timeliidæ* by several; *Sylviidæ* by several; *Turdidæ* by two species; *Ploceidæ* by two or three species; *Corvidæ* by one species; *Charadriidæ* and *Scolopacidæ* by a few species; *Ardeidæ* by two species; *Anatidæ* by two species; *Lariidæ* by one species; *Falconidæ* by one or two species?; *Strigidæ* by two or three species; *Psittacidæ* by several species.

“Of Mammalia, Marsupials are represented by one species of *Cuscus*, which, however, is not very common. No Kangaroos are found in any of the islands; but a small species of mouse-like mammal, of which I was unable to catch a specimen, may be a *Perameles*.

“Of Rodentia there are perhaps two species of Rats. The *Sciuridæ* do not occur.

“Of Chiroptera there are several small species, besides a common *Pteropus* or ‘Flying Fox.’ The *Suidæ* are represented by one species of Pig, of which I was able to obtain only one young specimen. On the mainland are found large herds of Buffaloes, black when full-grown, but of a reddish colour in the calf. ‘They came up out of the earth,’ according to the native tradition. There are no Deer. One species of Sirenian frequents the shores, and is hunted for its large canines, from which the natives make ear-rings; it is *Halicore australis* in all probability.

“The Carnivora are represented by the *Viverra tangalunga*, which is found on the mainland and on the islets of Larat and Vertate (as far as known to me). On Vertate they are kept as pets.

Of these the *Viverra*, the Buffalo, the Rats, and perhaps the Pigs are almost certainly introduced. Perhaps also this is the case with the *Geopelia* among the birds.

“Timor Laut seems, from our present rough survey, to have great affinity with the Moluccan (Amboina) region, perhaps more than with the Timor group. The Insecta seem very closely to resemble those of Amboina; but the Lepidoptera and Coleoptera are excessively few in number.”

The following is a list of the species of which examples are in the present collection, arranged according to the system adopted by Count T. Salvadori in his excellent work on the Ornithology of Papuasia and the Moluccas, just completed.

	Salvadori, <i>op. cit.</i>	Locality.	No. of examples.
I. ACCIPITRES.			
1. Pandion leucocephalus	i. p. 11	Kirimoen.	1
2. Haliastur girrenera.....	i. p. 15	Larat.	1
3. Tinnunculus moluccensis ...	i. p. 37	Loetoe.	1
4. Ninox forbesi, sp. nov. ....	.....	Loetoe, Tenimber Is.	1
5. Strix sororcula, sp. nov. ....	.....	Larat.	1
II. PSITACI.			
6. Tanygnathus subaffinis, sp. nov. ....	.....	Larat.	1
7. Geoffroius keiensis .....	.....	Loetoe and Larat.	2
8. Eclectus riedeli, <i>Meyer</i>	iii. p. 517	Larat.	2
9. Eos reticulata	i. p. 245	Larat.	1
III. PICARIÆ.			
10. Sauropatis chloris	i. p. 470	Larat.	2
IV. PASSERES.			
11. Monarcha castus, sp. nov. ...	.....	Loetoe.	1
12. — mundus, sp. nov.....	.....	(Label lost.)	1
13. — nitidus.....	ii. p. 35	Moloe and Larat.	3
14. Rhipidura hamadryas, sp. nov. ....	.....	Larat.	1
15. Myiagra fulviventris, sp. nov. ....	.....	Larat.	1
16. Microeca hemixantha, sp. nov. ....	.....	Loetoe and Larat.	3
17. Graucalus umimodus, sp. nov. ....	.....	Larat.	1
18. — melanops	ii. p. 130	Larat.	1
19. Lalage mæsta, sp. nov. ....	.....	(Label lost.)	1
20. Artamus leucogaster	ii. p. 167	Larat.	2
21. Dicruropsis bracteatus.....	ii. p. 174	Larat.	1
22. Pachycephala arctitorquis, sp. nov. ....	.....	Larat.	2
23. — sp. inc. (♀).....	.....	Larat.	1
24. Nectarinia sp. inc. (♀) .....	.....	Loetoe and Larat	2
25. Dicæum fulgidum, sp. nov....	.....	Larat and Loetoe.	2
26. Myzomela annabellæ, sp. nov. ....	.....	Loetoe.	1
27. Philemon plumigenis	ii. p. 353	Larat.	1
28. Geocichla sp. inc.....	.....	(Label lost.)	1
29. Munia molucca	ii. p. 434	Larat.	2
30. Erythrura tricolor (<i>Vieill.</i>)...	.....	Loetoe.	1
31. Calornis metallica	ii. p. 447	Maroe.	1
32. — crassa, sp. nov. ....	.....	Larat.	2
33. Corvus validissimus	ii. p. 487	Kirimoen.	1
V. COLUMBÆ.			
34. Ptilopus wallacii.....	iii. p. 30	Larat.	1
35. — xanthogaster	iii. p. 4	Larat.	2
36. Carpophaga concinna	iii. p. 81	Larat.	1
37. — rosacea.....	iii. p. 89	Loetoe and Maroe.	2
38. Myristicivora bicolor	iii. p. 107	Kirimoen.	1
39. Macropygia sp. inc.....	.....	Larat.	1
40. Geopelia maugæi	iii. p. 157	Larat.	1
41. Chalcophaps chrysochlora ...	iii. p. 169	Larat.	1

Table (continued).

	Salvadori, <i>op. cit.</i>	Locality.	No. of examples.
VI. GALLINÆ.			
42. <i>Megapodius tenimberensis</i> , sp. nov. ....	.....	Loetoe.	2
VII. GRALLATORES.			
43. <i>Orthorhampus magnirostris</i>	iii. p. 290	Kirimoen.	1
44. <i>Charadrius fulvus</i>	iii. p. 294	Maroe.	1
45. <i>Ægialitis geoffroii</i>	iii. p. 298	Maroe.	1
46. <i>Lobivanellus miles</i>	iii. p. 306	Larat.	1
47. <i>Totanus incanus</i>	iii. p. 320	Moloe.	1
48. <i>Numenius variegatus</i>	iii. p. 332	Larat.	1
49. <i>Ardea sumatrana</i>	iii. p. 340	Larat.	1
50. <i>Demigretta sacra</i>	iii. p. 345	Larat.	1
VIII. NATATORES.			
51. <i>Nettapus pulchellus</i>	iii. p. 385	Larat.	1
52. <i>Dendrocygna guttata</i>	iii. p. 388	Larat.	1
53. <i>Tadorna radjah</i>	iii. p. 391	(No ticket.)	1
54. <i>Onychoprion anæsthetus</i>	iii. p. 449	Moloe.	1

I will now give descriptions of the new species, and notes upon several others imperfectly known.

4. *NINOX FORBESI*, sp. nov. (Plate XI.)

Supra rufescenti-brunnea, fere unicolor, in alarum tectricibus et scapularibus fasciis albis variegata; fronte et superciliis albis; alarum remigibus terreno-brunneis, nigro transfasciatis; subtus dorso concolor, mento albicante, ventre albo transfasciato; tarsi, omnino plumosis, cum subalaribus rufis unicoloribus; alarum et caudæ pagina inferiore pallide corylino-brunnea nigro regulariter transfasciata; rostri nigri apice flavicante; digitis fuscis setis obtectis: long. tota 11·0, alæ 7·4, caudæ 4·5, tarsi 1·3.

Hab. Loetoe, Timor Laut.

Obs. Sp. quoad colores *N. hantu* maxime affinis, sed facie alba fasciis ventris albis, et alis subtus nigro vittatis diversa.

The single specimen of this Owl is a male, obtained at Loetoe on August 9, 1881. It is noted:—"Irides golden; bill pale cinereous; feet pale yellow, covered with bristly hairs; soles of feet nearly orange."

I have dedicated this apparently distinct species to its discoverer, Mr. Henry Ogg Forbes, F.Z.S.

5. *STRIX SORORCULA*, sp. nov.

Supra terreno-fusca flavicante variegata, et punctis rotundis albis regulariter aspersa; disco faciali amplo albo, margine nigricanti-brunneo circumdato; macula anteoculari nigricante; remi-

gibus fuscis, nigro transfusciatis, in pogoniis externis fulvo maculatis et albido vermiculatis; cauda nigricante, tæniis quinque fulvis transfaseiata et albido vermiculata; subtus alba, præcipue in ventre maculis rotundis nigris fulvo cinctis aspersa, subalaribus ventre concoloribus; tarsis postice fere omnino plumulis obtectis, antice digitos versus setis paucis obsitis; rostro et pedibus carnis: long. tota 11·5, alæ 8·5, caudæ 3·5, tarsi 2·2.

Hab. Larat, inss. Tenimberensium.

Obs. Species *S. novæ-hollandiæ* affinis et ejusdem formæ, sed crassitie valde minore, tarsorum plumis brevioribus et dorsi punctis rotundioribus distinguenda.

Mr. Sharpe, who has kindly examined the single skin of this Owl sent, is of opinion that it belongs to a species allied to *Strix novæ-hollandiæ*, but easily recognizable by its inferior size.

The example was obtained on Larat on the 24th of September, 1882, and is labelled:—"Female: irides dark brown; bill, legs, and feet flesh-colour; legs covered with flesh-coloured bristles."

6. TANYGNATHUS SUBAFFINIS, sp. nov.

Flavicanti-viridis, in pileo et capitis lateribus prasinus, in dorso postico cæruleo lavatus; alis viridibus; scapularium apicibus, campterio alari extus et tectricum majorum marginibus cæruleis; secundariorum tectricibus flavo marginatis; cauda supra viridi, apice flavicante, subtus obscure aurulenta; subalaribus viridibus cæruleo mixtis, alarum pagina inferiore nigricante; rostro ruberimo; pedibus nigris: long. tota 13·0, alæ 9·5, caudæ 6·0.

Hab. Larat, inss. Tenimberensium.

Obs. Species *T. affini* maxime affinis, sed dorso flavicante viridi vix cæruleo lavato, diversa.

The single specimen is a female, obtained in Larat on August 8. "Irides cream-yellow, with inner ring of pale gamboge."

8. ECLECTUS RIEDELI, Meyer, P. Z. S. 1881, p. 917.

Dr. A. B. Meyer has accurately described the female of this fine species, of which I exhibit a pair (the green bird marked "male" and the red bird "female"). I propose to give a description of them on a future occasion, as I have not yet been able to get access to a good series of the other *Eclecti*. But I may remark that the male is certainly not *E. westermanni*, Bp., as it has conspicuous red side-patches, nor the female *E. cornelia*, Bp., because, as pointed out by Dr. Meyer, the apical half of the tail and under tail-coverts are yellow.

11. MONARCHA CASTUS, sp. nov. (Plate XII. fig. 1.)

Supra niger; pileo et regione auriculari albis, fronte et tænia nucham cingente nigris circumdatis; dorso summo tæniæ nuchali proximo, uropygio et tectricibus alarum minoribus cum scapularium marginibus externis albis; subtus albus, gutture nigro, maculis tribus albis ornato; cauda alba, rectricibus tribus externis albo late terminatis; subalaribus et remigum pogoniis

internis albis; rostri plumbei tomis albicantibus; pedibus plumbeis: long. tota 5·7, alæ 2·7, caudæ 2·8.

Hab. Loetoe, Timor Laut.

Obs. Affinis *M. leucoti*, sed gula nigra distinctus.

The single example is marked "Male: irides reddish brown; bill lavender; legs and feet ditto; September 1882."

Fig. 1.

Fig. 2.

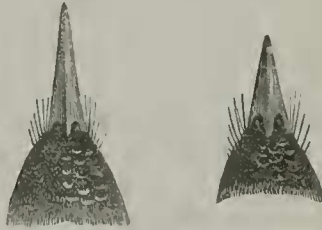


Fig. 1. Upper surface of bill of *Monarcha mundus*.

Fig. 2. Upper surface of bill of *Monarcha castus*.

12. MONARCHA MUNDUS, sp. nov. (Plate XII. fig. 2.)

Supra obscure cinereus, fronte lato, capitis lateribus et tectricibus alarum totis nigris; subtus albus, mento et plaga gulæ media nigris; cauda nigra, recticum quatuor lateralium apicibus latis albis; subalaribus albis, remigum pagina inferiore cinerea; rostro compresso, colore plumbeo, gonyde ascendente; pedibus nigris: long. tota 6·0, alæ 3·2, caudæ 2·7.

Hab. Inss. Tenimberenses.

There is no label to the single specimen of this species, and the bill is slightly damaged at the point. It seems to be allied to *M. motensis*, *M. bernsteini*, and *M. nigrimentum*, but has an unusually compressed bill, of which the gonys is slightly curved upwards.

14. RHIPIDURA HAMADRYAS, sp. nov.

Supra castanea, in capite postico et cervice magis fuscescens, fronte dorso concolore; subtus pallide cervina, torque gutturali nigro; gula alba; alis caudaque nigricantibus, illis rufo anguste marginatis; hujus recticibus externis cinerascens albo late terminatis; rostro et pedibus nigris: long. tota 5·7, alæ 2·3, caudæ 3·2.

Hab. Larat, inss. Tenimberensium.

Obs. Proxima *R. dryadi* (Gould, B. N. G. pt. ii. pl. 11), sed cervice postica rufescente nec fusca et alarum tectricibus rufo marginatis dignoscenda.

15. MYIAGRA FULVIVENTRIS, sp. nov.

Supra plumbea, capite et dorso nitore cæruleo tinctis; alis et cauda fusco-nigricantibus; subtus saturate castaneo-rufa, abdomine et subalaribus fulvis; remigum marginibus interioribus albicantibus; rostro et pedibus nigris: long. tota 5·8, alæ 2·7, caudæ 2·7.

Hab. Larat, inss. Tenimberensium.

Obs. Proxima *M. rufigulae* ex Timor, sed ventre et subalaribus fulvis distinguenda.

The single "male" in the collection is labelled, "Irides dark brown, bill lavender-blue, legs and feet black:" it was obtained in Larat on August 2nd, 1882.

16. *MICRÆCA HEMIXANTHA*, sp. nov.

Supra flavicanti-olivacea; alis caudaque fuscis dorsi colore marginatis, loris et linea superciliari obsoleta flavidis; macula auriculari fusca; subtus flava, remigibus internis albidis; subalaribus flavis; rostri fuscis mandibula inferiore pallida; pedibus nigris: long. tota 4·8, alæ 2·9, caudæ 2·1.

Hab. Larat et Loetoe.

Obs. Species *Pæcilodryadi papuanæ*, quoad colores, fere similis, sed, ut videtur, generi *Microcæ* apponenda.

17. *GRAUCALUS UNIMODUS*, sp. nov.

Totus cinereus, loris nigris; alis et cauda nigris, illarum tectricibus extus dorso concoloribus, remigibus cinereo anguste marginatis; subalaribus pallide isabellinis; remigum marginibus internis albicanti-cinereis; rostro et pedibus nigris: long. tota 13·0, alæ 7·2, caudæ 6·3, tarsi 1·1.

Hab. Larat, inss. Tenimberensium.

Obs. Species *Graucalo cæruleo-griseo* affinis, sed colore corporis cinerascens et remigibus intus non albis distinguenda.

Mr. Forbes's single specimen, a female (marked "Irides black; bill, legs, and feet black"), was obtained on Larat, August 4th, 1882. The male would probably be nearly similar.

19. *LALAGE MÆSTA*, sp. nov.

Supra sericeo-nigra; superciliis brevibus et uropygio albis; alis nigris, tectricibus minoribus et majoribus et secundariis albo late terminatis; corpore subtus, subalaribus et remigum pogoniis internis ad basin omnino albis; cauda nigra, rectricibus duabus externis albo terminatis; rostro et pedibus nigris: long. tota 6·2, alæ 3·7, caudæ 3·3.

Hab. Inss. Tenimberenses.

Obs. Affinis *L. atro-virenti* et *L. tricolori*, sed superciliis curtis albis dividenda.

The label of the single specimen has been torn off; and the exact island in which it was found is consequently not known.

22. *PACHYCEPHALA ARCTITORQUIS*, sp. nov. (Plate XIII.)

Supra cinerea, alis caudaque nigris cinereo limbatis, pileo nucha et capitis lateribus nigris; subtus alba, torque jugulari angusto nigro; subalaribus et remigum marginibus interioribus albis; rostro et pedibus nigris: long. tota 5·5, alæ, 3·0, caudæ 2·2.

Fem. Supra fusca, in pileo rufescens; alis nigris extus rufo limbatis; subtus alba, obsolete nigro striata.

Hab. Larat, inss. Tenimberensium.

Obs Similis *P. leucogastro*, sed torque angusto distinguenda.

The pair of this species were obtained in Larat, in the first week of August 1882. The iris is marked "reddish brown" in the male, and "dark brown" in the female; the feet "blue-black" in the male, and "lavender-pink" in the female.

25. *DICÆUM FULGIDUM*, sp. nov.

Supra nitide purpurascenti-nigrum; subtus album coccineo perfusum; hypochondriis olivaceo mixtis; subalaribus et remigum pogoniis internis albis; rostro et pedibus nigris: long. tota 3.6, alæ 2.0, caudæ 1.1.

Hab. Larat et Loetoe.

Obs. Similis *D. keiensi* et *D. ignicolli*, sed ventre toto coccineo perfuso distinctum.

There are two "male" examples of this *Dicæum* in the present collection—one from Larat (1.8.82) and one from Loetoe (19.9.82). Both are labelled, "Irides dark brown; legs and feet black."

26. *MYZOMELA ANNABELLÆ*, sp. nov.

Nigra; capite cum gutture toto undique et dorso postico coccineis; ventre medio et remigum marginibus externis strictissimis olivaceis; subalaribus et remigum pogoniis internis albis; rostro et pedibus nigris: long. tota 3.5, alæ 2.0, caudæ 1.3.

Hab. Loetoe, Timor Laut.

Obs. Sp. ad *M. erythrocephalam* et species huic affines adjungenda, corpore coloris nigro et crassitie minore insignis.

The single specimen was obtained September 29th at Loetoe. It is marked "Male: irides dark brown; bill black; legs and feet dirty green." I have named it by request of the discoverer after his wife, who accompanied him in his perilous travels.

28. *GEOCICHLA* sp. inc.

Mr. Seebohm, to whom I have referred the single specimen of this species, kindly writes me:—"The *Geocichla* from Timor Laut is evidently, a young bird in first plumage, which has not quite finished its first moult into the plumage of birds of the year. So far as it is possible to judge, the plumage of the upper parts in the adult bird would not differ from that of *G. peroni* of Timor (Cat. B. B. M. v. p. 169). The underparts are more difficult to understand. I think the buff feathers with the black terminal crescents are new feathers. If this be so, the underparts will be probably like those of *G. imbricata* from Ceylon. Unfortunately we do not know the young in first plumage of *G. peroni*; but I do not think that your bird can be it. I think it will prove to belong to a new species."

I think, however, it will be better to defer the description of this bird until other specimens have been obtained.

32. *CALORNIS CRASSA*, sp. nov. (Plate XIV.)

Obscure cineraceo-viridis nitore chalybeo; subtus, præcipue in ventre, paulo magis cineracea; alis caudaque nigris extus dorsi



J Smit hth

Hanhart imp.

NINOX FORBESI.





2

1

W. L. G.

Harry Simpson

1. MONARCHA CASTUS.
2 " MUNDUS.





J. Smith del.

Hanhart imp.





2



2
3



colore lavatis; remigum marginibus interioribus fuliginosis; rostro et pedibus nigris; cauda fere æquali aut paulum rotundata: long. tota 7·3, alæ 4·1, caudæ 2·8. Fem. Supra cineracea, striis scapularum nigris variegata; alis caudaque fusco-nigris; subtus alba nigro flammulata; crassitie fere eadem.

Hab. Larat, inss. Tenimberensium.

Obs. Species cauda fere æquali, corpore crasso, rostro robusto et colore maris uniformi notabilis.

Both male (August 1st) and female (August 8th) are marked "Irides dark brown; bill, legs, and feet black."

42. MEGAPODIUS TENIMBERENSIS, sp. nov.

Supra brunnescenti-olivaceus, in cervice magis cinereus, in dorso postico magis brunnescens; pileo subcristato interscapulo concolore; subtus cineraceus olivaceo tinctus; capitis lateralis et gulæ pelle rubra plumis paucis obsita; subalaribus ventre concoloribus; rostro flavo; tarsis antice nigris postice rubris, digitis nigris; long. tota 11·5, alæ 9·6, caudæ 3·5, tarsi 2·8.

Hab. Kirimoen et Loetoe, inss. Tenimberensium.

Obs. Species pedum colore ad *M. geelvinkianum* corporis pictura magis ad *M. tumulum* appropinquans.

There are two specimens of this apparently new Megapode in the collection. One from Loetoe, Timor Laut, obtained September 22nd, is marked "Irides dark brown; bill pale yellow; legs in front black, but front of knees red, back of legs red; feet black." The other, from Kirimoen, is labelled "Iris brown; bill pale yellow; legs and feet red." But the colours of these last-named parts, so far as can be told from the dry skins, do not materially differ from those of the first specimen; and the two birds agree in plumage, except that the specimen from the islet of Kirimoen is rather more reddish on the face.

To conclude this communication I will say a few words concerning the general character of the avifauna of the Tenimber Islands so far as it is indicated by this collection. It is quite evident that the prevailing facies of this ornis is, as might have been expected, predominantly Papuan. Of the 54 species included in the above-given list, 33 are mentioned in Salvadori's work. Of the 15 new species all are of Papuan genera, and nearly allied to known Papuan species except the *Strix*, which appears to be a diminutive form of an Australian type, and the *Myiagra*, which is nearest to a Timor form. Of the 4 indeterminable species, three are Papuan forms, but the fourth (the *Geocichla*) is probably most nearly allied to a Timor bird. There is also in the collection one other Timor bird, *Erythrura tricolor*, which is not found in New Guinea or the Moluccas. I think, therefore, we may fairly say that the Tenimborese Avifauna is preeminently Papuan, varied only by a slight element from Timor (represented by *Erythrura tricolor*, *Myiagra fulviventris*, and the *Geocichla*), and by an Australian tinge shown by

the *Strix*, and perhaps by *Monarcha nitidus* being present (as in the Aroo Islands) instead of *M. chalybeocephalus*.

That the Tenimber group would possess a certain number of peculiar endemic forms was also to be expected, from their isolated situation and the deep channel around them. Altogether these are 17 in number, namely the 15 species above described as new, and two Parrots (*Eos reticulata* and *Eclectus riedeli*) previously known. To these must be added probably a "White Cockatoo" spoken of by Mr. Forbes in his report, but of which no specimen is in the collection. This species is in all probability *Cacatua citrinocristata*, well known as a cage-bird, but of which the true "habitat" has never been positively ascertained, though it has always been suspected to be from the Tenimber Islands¹.

2. Studies in the Holothuroidea.—II. Descriptions of new Species. By F. JEFFREY BELL, M.A., Sec. R.M.S., F.Z.S., Professor of Comparative Anatomy in King's College.

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(Plate XV.)

A survey of the British-Museum collection of Holothuroidea reveals the presence of a number of forms which have never yet been subjected to systematic examination or description.

It may be convenient, now that they are about to find a new home, to provide them, or some of them, with definite names, wherewith to enter the "Spirit-room" at South Kensington.

CAUDINA MERIDIONALIS. (Plate XV. fig. 1.)

It is interesting to find a third species of this curious genus so soon after the description by Marenzeller of *C. ransonnetti* from the Yellow Sea.

"Body" tending to be square; "tail" quite as long as or longer than the body. When the tentacles are retracted, the anterior end is blunter and squarer than in *C. arenata*. No sign of any genital papilla; but this may be due to the extreme corrugation of both the examples. The aboral prolongations of the radial pieces of the buccal skeleton are longer and narrower than in either of the already described species, and the intermediate cleft is consequently of considerable extent. The sides of the radial pieces are not deeply excavated as in *C. ransonnetti*. Connected with the ring are a number of long free ampullæ; it was not possible to make out the characters either of the Polian vesicles or of the tentacles.

The calcareous bodies in the integument are very different to those of *C. arenata*, the surface view presenting us with a kind of

¹ Cf. Wallace, P. Z. S. 1864, p. 280.

mulberry form, the bars not projecting out so far or so freely as they do in *C. ransonnetti*. The composing bars are exceedingly stout, and the spaces between them proportionately small. (Plate XV. fig. 1.)

Colour brownish yellow or yellowish white.

Length (skin much corrugated) :—"body" 35; 50; "tail" 37; 73. Breadth of "body" 15; 16 millim.

A specimen found on an anchor-cable at Wellington, New Zealand (presented by W. Wykeham Perry, Esq.), gives an exact locality for the species; another specimen was collected by the Antarctic Expedition.

OCNUS VICARIUS. (Plate XV. fig. 2.)

In associating this species with the genus *Ocnus* rather than *Cucumaria*, I have to point out that it appears to represent in the Southern Seas *Cucumaria culcigera*, and to raise the question as to whether, at present, we have drawn the best and most natural line of demarcation between these two genera.

Ten tentacles, of which two are shorter than the rest, not frequently divided; body elongated in form; integument thin but very firm, on account of the rich deposit of calcareous bodies in its substance. The ambulacral suckers in pairs, but the pairs so irregular, though confined to their own areas, that there is almost a zigzag arrangement; the costate arrangement at the anal extremity is only faintly indicated. The spicules, which are very richly developed in the skin, have, apparently typically, four central holes with at least one complete circlet of smaller holes; some attain to a great size. The supporting rods in the suckers are richly developed.

The retractors are slender and rather short; the component pieces of the buccal armature delicate. The other details of internal structure could not be made out in the specimen dissected.

Measurements in millim. :—

Length.. 41; 28; 18·5. Breadth.. 8; 6·5; 4·5.

Colour (after preservation in spirit for many years) white.

Locality: the Antarctic area is hinted at by the specimens having been collected by Sir E. Belcher.

THYONE MERIDIONALIS. (Plate XV. fig. 3.)

Body truncated in front when the tentacles (in the size of which there is no marked difference) are retracted, tapering very considerably at the hinder end; suckers absent from the greater part of the bival surface, well enough developed above, and diminishing in number on either side as they approach the bivium. Integument thin, except in the more anterior region. No calcareous teeth to the anus.

Retractors of the proboscis inserted nearly as far back as the middle of the body, very wide at their insertion; each band divisible into three or four smaller bands. Polian vesicle single, nearly equal

to a third of the length of the body, much contracted at its free end.

The interradial pieces of the calcareous ring are not as much as half the width of the radial, nor are they quite so high. Both sets are elongated, their sides parallel, and without any prominent notch at their proximal end.

The only spicules appear to be the very sparsely distributed rods found in the walls of the suckers. I may point out that in another species of this genus lately examined by me I have noted a complete absence of calcareous spicules.

Length¹ 77; 52 millim. Greatest breadth 38; 25.

In the larger specimen the Polian vesicle is 25 millim. long, and the distance between the points of origin and insertion of the retractors is 45 millim.

Colour dark or lighter brown, anterior end white in parts.

Possession Bay, Straits of Magellan. Coll. Cunningham.

THYONE CUNNINGHAMI. (Plate XV. fig. 4.)

Body stout, narrowing suddenly at the hinder end; tentacles subequal, yellowish cream-coloured; suckers much better developed on the trivial than on the bivial surface. Skin thicker posteriorly than anteriorly; quite thin in front. Anus without teeth, but fringed by papillæ.

Retractors stout, distinctly double, inserted very far back, behind the middle of the length of the body. Polian vesicle delicate, elongated in form and not very short. The distal end of the buccal skeleton is very stout; the interradial is a little narrower than the radial piece, or, as the sides of both are not exactly parallel, they are rather narrower at their free end than at their base.

Spicules rather delicate rods, often pitchfork-shaped, or swollen and perforated at their ends, sometimes more irregular in form.

The single specimen is 50 millim. long, 17 wide; Polian vesicle 10 long; insertion of retractors 28 millim. from their origin.

Colour light grey.

Off Dungeness, Patagonia. Coll. Cunningham.

PHYLLOPHORUS DORSONI. (Plate XV. figs. 5, 5 a, 5 b.)

Of the four species² of this genus already known, it would be with one only, *P. holothuroides* of Ludwig, that, even at first sight, we should feel inclined to associate this new form. The spicules, the buccal armature, and the arrangement of suckers on the trivium are, however, very different.

Rounded in form, about twice as long as broad, with a soft integument, with the suckers irregularly distributed, covering the bivium and both ends, but scarce or absent in the central portion of the trivium. The retracted gills appear to be 18 in number, of

¹ Owing to the shape of the bodies their length can only be approximately given.

² The name only of *P. tenuis* can be said to be known.